Amendments to the Claims:

1.-14. (canceled)

15. (currently amended) A viscous torsional vibration damper, having two faces comprising:

an annular damper housing, which can be non-rotatably connected with a machine shaft;

said damper housing surrounding a working chamber for receiving a flywheel; and

said working chamber being filled with a viscous damping medium;

wherein at least one of the two faces of the torsional vibration damper carries a fan plate with radially inner and radially outer cooling channels, the cooling channels being arranged on at least two concentric graduated circles of the fan plate, the cooling channels formed between closed arched surface features formed from the fan plate; and

wherein a ratio c_a between a radial length l and a width b of the radially outer cooling channels is greater than a ratio c_i of the radially inner cooling channels,

further wherein the radially inner cooling channels have different geometrical dimensions than the radially outer cooling channels.

16. (canceled)

17. (currently amended) The viscous torsional vibration damper according to Claim 15 [[16]], wherein the ratios c_a, c_i are between 3.5 and 1.

18. (previously presented) The viscous torsional vibration damper according to Claim 15, wherein a cross-sectional surface Q_a of the radially outer cooling channels is smaller than a cross-sectional surface Q_i of the radially inner cooling channels.

19. (previously presented) The viscous torsional vibration damper according to Claim 15, wherein the radially inner cooling channels are wider than the radially outer cooling channels.

20. (previously presented) The viscous torsional vibration damper according to Claim 15 wherein an angular distance α_a between adjacent radially outer cooling channels is smaller than an angular distance α_i of the radially inner cooling channels.

21. (previously presented) The viscous torsional vibration damper according to Claim 20, the angular distance α_a between adjacent radially outer cooling channels is between 3° and 7°.

22. (previously presented) The viscous torsional vibration damper according to Claim 20, wherein the angular distance α_i between adjacent radially inner cooling channels is between 5° and 15°.

23. (previously presented) The viscous torsional vibration damper according to Claim 21, wherein the angular distance α_i between adjacent radially inner cooling channels is between 5° and 15°.

24. (previously presented) The viscous torsional vibration damper according to Claim 15,

wherein at least one of the radially outer and radially inner cooling channels are oriented at an angle of slope $\beta \leq 30°$ with respect to their radial lines R.

25. (previously presented) The viscous torsional vibration damper according to Claim 15, wherein the cooling channels are situated on different radial lines R.

26. (previously presented) The viscous torsional vibration damper according to Claim 15, wherein the radially inner cooling channels are radially spaced with respect to the radially outer cooling channels.

27. (previously presented) The viscous torsional vibration damper according to Claim 25, wherein the radially inner cooling channels are radially spaced with respect to the radially outer cooling channels.

28. (previously presented) The viscous torsional vibration damper according to Claim 26,

wherein the radial spacing of the cooling channels amounts to between 20% and 100% of the length l of the cooling channels.

29. (previously presented) The viscous torsional vibration damper according to Claim 15,

wherein the cooling channels with open ends on the radial side are formed in an arched manner from a plane of their circular sheet metal blank.

30. (previously presented) The viscous torsional vibration damper according to Claim 15,

wherein the cross-section of the cooling channels is one of rectangular, sinusoidal and circular.

31. (currently amended) A viscous torsional vibration damper, comprising:

an annular damper housing, which surrounds a working chamber configured to receive a fly wheel and to be filled with a viscous damping medium;

a fan plate formed on at least one of two faces of the viscous torsional vibration damper, the fan plate having radially inner and radially outer cooling channels arranged thereon in at least two concentric graduated circles, the cooling channels formed between closed arched surface features formed from the fan plate, ~~the radially inner cooling channels having different geometrical dimensions than the radially outer cooling channels~~ and a ratio c_a between a radial length l and a width b of the radially outer cooling channels is greater than the ratio c_i of the radially inner cooling channels.

32. (canceled)

33. (currently amended) The viscous torsional vibration damper according to Claim 31 [[32]], wherein the ratios c_a, c_i are between 3.5 and 1.

34. (previously presented) The viscous torsional vibration damper according to Claim 31, wherein a cross-sectional surface Q_a of the radially outer cooling channels is smaller than a cross-sectional surface Q_i of the radially inner cooling channels.

35. (currently amended) The viscous torsional vibration damper according to Claim 31 [[32]], wherein the radially inner cooling channels are wider than the radially outer cooling channels.

36. (previously presented) The viscous torsional vibration damper according to Claim 31, wherein an angular distance α_a between adjacent radially outer cooling channels is smaller than an angular distance α_i of the radially inner cooling channels.

37. (currently amended) A heat transfer apparatus for use with a viscous torsional vibration damper, comprising:

a fan plate operatively configured to be arranged on at least one of two face surfaces of the torsional vibration damper when in use;

wherein the fan plate includes radially inner and radially outer arranged cooling channels, the radially inner and radially outer arranged cooling channels forming two concentric graduated circles on the fan plate, the cooling channels formed between closed arched surface features formed from the fan plate; and

wherein a ratio c_a between a radial length l and a width b of the radially outer cooling channels is greater than a ratio c_i of the radially inner cooling channels ~~the radially inner cooling channels have different geometrically dimensions than the radially outer cooling channels~~.

38. (canceled)

39. (currently amended) The viscous torsional vibration damper according to Claim 37 [[38]], wherein the ratios c_a, c_i are between 3.5 and 1.

40. (previously presented) The viscous torsional vibration damper according to Claim 37, wherein a cross-sectional surface Q_a of the radially outer cooling channels is smaller than a cross-sectional surface Q_i of the radially inner cooling channels.

41. (previously presented) The viscous torsional vibration damper according to Claim 37, wherein the radially inner cooling channels are wider than the radially outer cooling channels.

42. (previously presented) The viscous torsional vibration damper according to Claim 37, wherein an angular distance α_a between adjacent radially outer cooling channels is smaller than an angular distance α_i of the radially inner cooling channels.